# The Mobile Reference Service: a case study of an onsite reference service program at the school of public health\*

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The School of Public Health at Saint Louis University is located at a greater distance from the library than other programs on the main medical center campus. Physical distance diminishes the ease of access to direct reference services for public health users. To bridge the gap, the library developed the Mobile Reference Service to deliver onsite information assistance with regular office hours each week. Between September 2006 and April 2007, a total of 57 in-depth reference transactions took place over 25

weeks, averaging 2 transactions per week in a 2-hour period. Overall reference transactions from public health users went up 28%, while liaison contacts with public health users doubled compared to the same period the year before. The Mobile Reference Service program has improved library support for research and scholarship, cultivated and strengthened liaison relationships, and enhanced marketing and delivery of library resources and services to the Saint Louis University School of Public Health.

# **BACKGROUND**

Advances in computer and networking technologies over the past few decades have transformed library collections and services. Users now routinely obtain information online that once required a trip to the library. Use of the physical library has changed with the dominant shift to online formats, as both gate counts and in-house reference transactions have declined [1]. Although many users favor self-learning and self-searching for information, they also want more instruction on literature searches and information assistance at their time of need and on their own "turf." They value personal contact with library staff as a way to ask questions and resolve problems [2].

The combination of fewer visits to the library and the continuing need for face-to-face information assistance requires librarians to create new ways to bring services to users. As early as the 1970s and 1980s, Swope and Katzer [3], as well as Ford [4], advocated the concept of taking reference services to a location outside the library. A 2004 survey conducted by the Association of Research Libraries (ARL) reported that forty-one libraries across the country provided scheduled, in-person services in academic departments or other institutional spaces outside of the library [2]. Some university libraries set up satellite reference and education services at student residence halls [5–7]. Others provided onsite, face-toface services at a variety of campus centers, writing centers, career centers, study halls or commons, student unions, and other locations where students congregate [8–12]. Offices, classrooms, computer labs, or open spaces in the academic department buildings also became onsite library service locations for participating librarians [2]. Loyola University [13], University of Southern California Libraries [14], University of Calgary Library [15], University of Buffalo Arts and Sciences Libraries [16], and Purdue University's Siegesmund Engineering Library [17] all launched librarian-on-site reference and instruction services to different academic departments a few hours a week. Virginia Tech went a step further by establishing the College Library program. They moved librarian offices into selected colleges nearly full time and created "virtual branches" of the library there [18, 19].

The above provides some examples of academic libraries expanding services beyond library buildings and offering in-person reference services at other campus locations. Although not every library has implemented onsite reference services successfully [6], these scheduled and in-person services at locations outside the library have created a new way to provide user-centered services. As Leonard states, "if customers are less likely to visit the library, then librarians must go to their customers" [20].

In 2005, the Medical Center Library at Saint Louis University launched a library liaison program that matched reference librarian subject specialists with users in the Saint Louis University School of Medicine, School of Nursing, Doisy College of Health Sciences, and School of Public Health, as well as the Saint Louis University Center for Advanced Dental Education and Center for Health Care Ethics. Librarians with formal science education (including those with medical and doctoral degrees) were assigned to provide liaison services in the disciplines for which they were trained: clinical medicine, basic science research, health informatics, nursing, and allied health professions.

The school of public health is located further from the library than other programs on the main medical center campus. The library provides a wide range of electronic resources; however, physical distance diminishes the ease of access to direct reference services for public health users. To bridge the gap, an outreach program called the Mobile Reference Service, was developed in the fall semester of 2006 to deliver onsite

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information assistance during regular weekly office hours. This paper shares the experience of planning, implementing, maintaining, and evaluating this new program. The challenges encountered and issues involved are also discussed.

#### PLANNING THE MOBILE REFERENCE SERVICE

During the planning process in the summer of 2006, the library set the goals and the scope of service for the program, determined needed resources, identified actions to be carried out, and proposed expected outcomes in terms of public health user perceptions of the ease of access and use of library resources and services.

# Goals and objectives

Keeping in mind the library's resources and services as well as public health users' information needs related to teaching, learning, and research, the goals and objectives of the Mobile Reference Service were:

- to provide onsite library information services for public health faculty, students, and staff
- to improve library support for research and scholarship
- to cultivate and strengthen liaison relationships with the school of public health
- to enhance marketing and delivery of library resources and services

# Scope of service

The library decided to provide the following services as part of the new program: (1) literature searches, (2) individual or group instruction in searching the literature or finding reference materials, (3) identification of full-text resources, and (4) other customized library information on request. Delivery of loaned books and print journal articles to and from the library was not included.

# Establishment of collaborative partnership

Early in the planning process, the library director introduced the liaison librarian to a program coordinator at the school as the direct contact person for library services. The president of the public health student's organization was an enthusiastic participant in the planning process. Working closely with these staff and student partners, the liaison librarian was able to acquire information on course and department meeting schedules, faculty research activities, and other academic activities around the school.

# Organization of the service

The student organization's office was selected as the service location based on availability, accessibility, high volume of student and faculty traffic, space area, furniture, equipment, wireless signal strength, and other similar concerns. The office provided space for

the librarian to provide in-depth, personal, one-onone information assistance and consultation without disturbing other students. As the service also aimed to increase general awareness of the library's resources and services, handouts and brochures about library resources and services and the liaison librarian's business cards were brought to the office along with basic office supplies.

After reviewing the fall semester course schedule and consulting with the student coordinator and the student president, a regular weekly two-hour time slot, during which many students have a break between morning and afternoon classes, was identified as the best service period. A workday in the third week of the fall semester was selected as the service start date because (1) faculty and students usually need the first few weeks of a new semester as a transition time to adapt to busy academic schedules, and (2) full faculty and student meetings were scheduled for the second week of the fall semester, providing good opportunities to announce the new service.

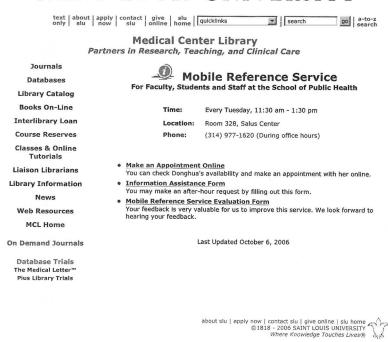
To handle the possibility of a high volume of requests during the two-hour period as well as to provide flexible scheduling, a sheet was designed to permit users to sign-up for assistance. The same sheet was used to record information about start time, duration of a session, type of questions asked, and users' basic demographic information. An additional information request form was designed for use outside of scheduled service hours or if the service was cancelled. Public health users could send the form by fax or campus mail to the liaison librarian. They could also contact the liaison librarian by email or telephone to ask questions when the service was not available. A service evaluation form with five multiple-choice questions and one open-ended question asked users for feedback on the usefulness of the service, time, location, and reference librarian's professional manners and suggestions about how to make this service better meet their needs. The liaison librarian always mentioned the form to the information requesters, although completing it was voluntary. All forms were available on a wall outside the office for easy access in the librarian's absence.

# Service publicity

A series of carefully planned publicity activities began with an announcement letter sent to all the public health users via email. A hard copy of the letter and a brochure were inserted in each faculty member's campus mailbox eight days before the service started. Next, an oral announcement was made by the student president at both full faculty and student meetings one day after the email and hard copy announcement letters were distributed. Then, flyers were posted on all bulletin boards in the school's building two days before the service debuted. Finally, one day before the service started, the reference librarian brought the directional sign, necessary materials, and office supplies to set up the office. Information about the

Figure 1
Mobile Reference Service website

# SAINT LOUIS UNIVERSITY



service time, location, involved staff, and service scope was included in those publicity materials.

# IMPLEMENTATION OF THE MOBILE REFERENCE SERVICE

# Inauguration of the Mobile Reference Service

A kick-off event was held to encourage public health users to try the new service, and school of public health faculty, students, and staff who used the new service were given a small gift. On the first day, a total of five students made information requests.

# The Mobile Reference Service website

One month after the service started, some public health users suggested that the liaison librarian make the sign-up sheet, information request form, and service evaluation form accessible online so that they would not have to physically go to the service office to pick up hard copies. Following their suggestion, a simple Mobile Reference Service website was designed and launched in October 2006. Basic information about the Mobile Reference Service and three forms were included on the website (Figure 1).

# EVALUATION OF THE MOBILE REFERENCE SERVICE

The sign-up sheet and evaluation form provided data to evaluate the service quantitatively and qualitatively. The number of reference transactions per week, type and content of questions, duration of reference transactions, users' feedback on the evaluation form, and changes that occurred after the implementation of the Mobile Reference Service are reported below.

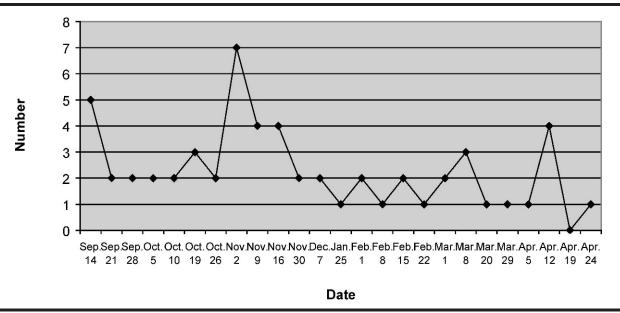
#### Number of reference transactions

Between September 2006 and April 2007, a total of 57 reference transactions took place over 25 weeks, averaging 2 transactions per week in a 2-hour period (Figure 2). Among them, 44 questions were asked by students, 7 by faculty, 4 by staff, and 2 by others.

# Type and content of questions

Among the total 57 reference transactions, 31 (54.4%) were literature search requests; 9 (15.8%) were requests for library resources and services instruction; 9 (15.8%) were requests for literature search and information technologies instruction, which included database search instruction, citation management software (EndNote) instruction, and Microsoft Power-Point instruction; 4 (7.0%) were technical questions about printing, computer use, and data sorting; 2 (3.5%) were questions about information resource identification; 1 (1.7%) was a dissertation-related request; and 1 (1.7%) was a faculty member who dropped by to say "Hello." The literature search topics covered all the areas of public health, including environmental health, health behavior, health administration, epidemiology, biostatistics, health economics, and community health.

Figure 2
Mobile reference transactions in fall 2006 and spring 2007



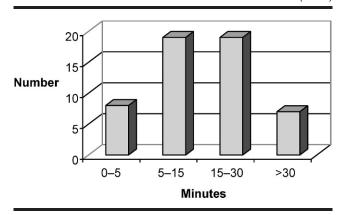
# **Duration of reference transactions**

Probably because literature search and instruction requests accounted for 86% of reference transactions, the amount of time spent on these questions was longer than what was typically experienced for general reference questions (Figure 3). Based on the data recorded on the sign-up sheet, fifteen minutes were needed for literature search requests on a simple topic. However, for search topics that covered multiple disciplines or required an in-depth literature search, it was not unusual to spend half an hour or longer to retrieve relevant information.

# User's feedback summarized from the evaluation form

Between September 2006 and April 2007, ten evaluation forms were returned to the liaison librarian. All feedback was positive. All respondents indicated that

**Figure 3**Duration of Mobile Reference Service reference transactions (n=57)



the liaison librarian retrieved the information they needed and that they learned how to find information. They all praised the liaison librarian's professional behavior and indicated that the service location and hours were convenient for them. Some respondents included the following comments about the services: "Thank you for your help! I will definitely be back if I need help again with my project" and "Very helpful, great communicator."

# Changes after implementing the Mobile Reference Service

Onsite reference services have strengthened the relationship between the public health users and the library. The liaison librarian's willingness to come to the public health users appears to have had a significant effect on their use of library resources and services. Between September 2006 and April 2007, total reference inquiries received from public health users, including those from the Mobile Reference Service, went up 28% (from 114 to 146). The liaison contacts with public health users doubled compared to the same period in the previous year. Library services, other than reference services, have also been increasingly used by public health users. For example, electronic course reserves have been more heavily used than before. The increased use of in-library resources and services by public health users reflects the positive impact of the Mobile Reference Service program. During Mobile Reference Service sessions, the liaison librarian always introduced library resources and services that were relevant to the questions, including the PubMed LinkOut button, the library's find-full-text button, electronic course reserves, and so on. Therefore, public health users became more familiar with and aware of library

resources and services, and this appears to have been responsible for the observed increase in use of library resources and services. In addition, once public health users discovered the value of the services provided by the liaison librarian, they might not have minded making a physical trip to the library to ask reference questions at times when the Mobile Reference Service was not available.

While public health users have benefited from the Mobile Reference Service, the program has also allowed the liaison librarian to increase her understanding of the users, programs, and activities in the school. In addition, the liaison librarian has increased her knowledge of public health subjects and information resources that are useful in public health. Because the program is ongoing, Mobile Reference Service hours, location, and the liaison librarian's contact information have been included in several course syllabi and faculty encourage students to ask questions during the service hours. An unexpected outcome of the service was the presentation of the 2006 Award for Exceptional Service to the School by an External Person to the liaison librarian by the dean of the school of public health.

Another important benefit of the program has been the strengthening of relationship between the school and the library. The higher administrative levels of these two university units communicate more now. Public health users have started actively participating in collection development activities relevant to the public health field. The library has also cosponsored some of the events held by the school.

# **CHALLENGES AND ISSUES**

The survey conducted by ARL on "Library Services in Non-library Spaces" reported the challenges of providing reference services outside the library building [2]. They included (1) negotiating and procuring access to scarce departmental space; (2) staffing and keeping the service a priority for the libraries; (3) providing service scalability, which involves deciding if a library should provide this service for every department; and (4) marketing and publicizing the programs. Among these four, only the last has been a challenge for the library. Service maintenance and technical support are two further challenges for the Mobile Reference Service that deserve additional attention.

# Service marketing and promotion

It is not unusual for a new product or service to receive a high level of interest and use when it is first introduced and novel and then, as time goes by, see that interest decrease. Helping people to remember the service and use it as a matter of routine—in the same way they check email, write reports, and attend meetings—can be challenging.

Service marketing is a matter of communication. Transmitting an accurate and updated message about library resources and services in a timely manner through appropriate channels to public health users is a long-term task that needs to be planned and implemented strategically. A number of communication methods have been carried out, including (1) sending a reminder email about the service before a new semester starts and during mid-term and final exam periods, (2) sending a reschedule notification email when the service cannot be provided as scheduled, (3) scheduling non-rush literature search requests received by email during the office hours, (4) attending faculty and student meetings to remind users of the service, and (5) mentioning the service to the faculty and students when the librarian comes across them in the school building or on campus.

While email is the easiest way to communicate with public health users, email is not always checked frequently, and sometimes the delivery system fails or users just do not read the email due to their busy schedules. Therefore, multiple communication approaches or tools and systematic communication strategies are needed. In the future, Web 2.0 tools can be utilized to enhance the communication between the library and the school. Examples include (1) publicizing new resources and services through really simple syndication (RSS) feeds or podcasts, (2) attaching a social bookmarking icon that is linked to the library's website to the table of contents of a popular journal in public health, (3) or creating a blog or a social networking account, such as Facebook or MySpace, to describe and publicize specialized library resources and services to public health users.

# Service maintenance

In some sense, the Mobile Reference Service is like a business. The library "borrows" an office in the school building and provides information service to the school's users. Once each week, the library opens the business and waits for the "customers" to visit. How to attract new and retain old "customers" is an ongoing challenge.

A strong and positive relationship with the school's administrators, staff, and student partners is very important to meeting that challenge. Maintaining and cultivating that relationship depends in part on the librarian's continued record of prompt responses, friendly and professional manners, and useful information services. This excellent service sets the foundation for and strengthens the liaison's relationship with public health users, and positive feedback from users reinforces the beliefs of administrators, public health partners, and the liaison librarian in the need to provide and continue the service. This stimulates, in turn, new ideas on how to improve the service and optimize its use.

In addition to maintaining a good relationship with the school's administrators, partners, and faculty, creating a comfortable office environment is also important for service maintenance. Although the library shares the office with the student organization and the space is limited, a comfortable office environment helps develop a relaxed atmosphere for conversation. As the shared office is the school's facility, only the necessary materials and office supplies related to the service are kept there.

Providing efficient information services, building positive relationships, creating a comfortable office set-up, and other strategies and measures for the service's maintenance are interactive and interrelated to each other. All of these measures need constant monitoring to successfully maintain the service, although a particular aspect may be emphasized at any given time.

# Technical support

As the service is provided in an office in the school, the librarian had to rely on troubleshooting provided by the school whenever problems were experienced with the computer or the network. Fortunately, the liaison librarian encountered a technical problem just once in the fall semester in 2006. The school's automation staff responded quickly and fixed the problem, which ensured that the service was provided on time.

In spring 2007, the school began to charge for computer printing. Using the online features of the catalog system, database systems, and electronic journal and book systems, the librarian was able to save printing fees for users. The patrons did not print out any search results in the spring semester as those results were emailed to users, saved on their flash drive, or saved on the database systems.

Providing information services in a nonlibrary building depends heavily on advanced technologies. Fast network transmission speed, proper database function and response time, advanced skills in using technologies, and strong technical support help ensure the service is provided successfully and in a timely fashion.

#### **CONCLUSION**

The Mobile Reference Service program provides library information services for Saint Louis University School of Public Health faculty, students, and staff where and when assistance is most needed. Now more aware of available resources, public health users are receiving in-person assistance they probably would not otherwise have sought and are making more use of other library services.

The high quality of information services, along with an ongoing partnership with the school of public health administrators, has helped to ensure the program's success and continuing use. The customized, one-on-one information service has enriched traditional reference services by adding a consultation service model. Even in a digital environment, librarians need to be actively engaged with patrons in the process of information access and assessment at each stage of the research process [21]. These expanded partnerships between librarians and faculty, students, and staff can become the basis for improving research, teaching, and learning in the current information age.

As Schillie et al. state, "Just as computing power is distributed, so too can librarian power be distributed" [18]. Providing multiple layers of information services is vital for library users to effectively access and use information. The success of the Mobile Reference Service program offers strong evidence to prove that libraries should provide reference services in a variety of formats to meet the needs of library users.

Programs like this can become excellent marketing tools for the library in general. They increase the visibility of library services and resources, enhance the positive image of library staff, and raise the library's profile all over the campus. The Mobile Reference Service also strengthens liaison relationships with the academic programs served and provides valuable experience for developing new outreach programs for the future.

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